# CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product rangerepresenting leading technologies & brands:

**Flow:** Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

**Temperature:** Temperature Probes & Thermowells, Temperature ransmitters, Temperature Regulators & Temperature Displays

Level: Level Transmitters & Switches

**Pressure:** Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

**Precision Pneumatics:** Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

**Valves:** Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

**Services:** Repair, Calibration, Panel Build, System Design & Commissioning





# burkert















# Honeywell











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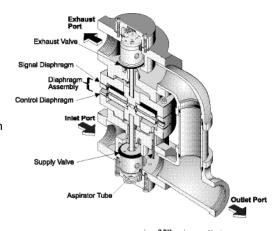
### **Features**

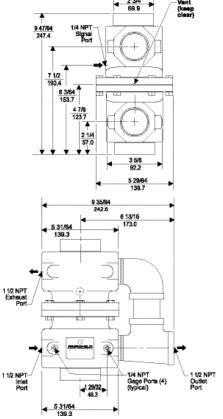
- The Model 200XLR Pneumatic Volume B ooster produces a pneumatic signal in a 1:1 ratio. It is ideally suited for systems that require input isolation or increased forward and exhaust flow capacities.
- Control sensitivity to 1" water column variation
- Large supply and Exhaust Valves provide high forward and exhaust flows
- An Aspirator Tube minimizes downstream pressure droop under flow conditions.
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing
- Optional Increased Sensitivity configuration with larger Control Diaphragm for more precision control at low setpoints.

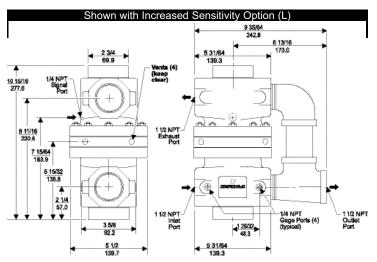
### **Operating Principles**

When signal pressure on the top of the signal Diaphragm creates a downward force on the Diaphragm Assembly, the Supply Valve opens. Output pressure flows through the Outlet Port and the Aspirator Tube to the Control Chamber to create an upward force on the bottom of the Control Diaphragm. When the setpoint is reached, the downward force of the signal pressure that acts on the top of the Signal Diaphragm balances with the upward force of the output pressure that acts on the bottom of the Control Diaphragm.

When the output pressure increases above the signal pressure, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Excess output pressure exhausts through the Exhaust Port until it reaches the setpoint.









### **Specifications**

### Flow Capacity (SCFM)

In excess of 1500 (2550  $\rm m^3/hr)$  @ 100 psig, [7.0 BAR], (700 kPa) supply and 20 psig, [1.5 BAR], (1500 kPa) setpoint

### **Exhaust Capacity (SCFM)**

325 (552.5 m³/hr) where downstream pressure is 5 psig, [.35 BAR], (35 kPa) above 20 psig, [1.5 BAR], (150 kPa) setpoint

### **Supply Pressure**

250 psig, [17.0 BAR], (1700 kPa) Maximum

### **Supply Pressure Effect**

Less than 0.5 psig, [.03 BAR], (3.4 kPa) for 100 psig, [7.0 BAR], (700 kPa) change in supply pressure

### Signal or Output Pressure

150 psig, [10.0 BAR], (1000 kPa) Maximum

### Sensitivity

1" (2.54 cm) Water Column

### **Ambient Temperature**

-40°F to +200° F, (-40°C to +93° C)

### **Materials of Construction**

| Body and Housing | Die Cast Aluminum             |
|------------------|-------------------------------|
| Trim Stair       | nless Steel, Brass, Aluminum, |
|                  | and Zinc Plated Steel         |
| Diaphragms       | Nitrile on Dacron             |

### **Catalog Information**

| Catalog Number               | 2001            |     | XLR |   |   |
|------------------------------|-----------------|-----|-----|---|---|
| Pipe Size                    |                 |     |     |   | _ |
| 1 1/2" NPT                   |                 | 12  |     |   |   |
| Options                      |                 |     |     |   |   |
| Fluorocarbon (Viton) Elastor | ners            |     |     | J |   |
| Increased Sensitivity        |                 |     | L   |   |   |
| (for more precision control  | at low cotnoint | ·c) |     |   | _ |

## Installation

For installation instructions, refer to the Fairchild Model 200XLR Pneumatic Volume Booster Installation, Operation and Maintenance Instructions, IS-20200XLR.

